LIMITED WARRANTY

Oceanic warrants that this product shall be free from defective electrical components and leaks or cracks due to defects in materials or workmanship for a period of twelve months from the date of purchase. If a defect is shown, Oceanic will, at Oceanic's sole discretion, either repair or replace the product without charge. No cash refunds will be made. This warranty is provided solely to the original consumer purchaser of the product and may not be transferred or assigned.

This warranty does not apply to damage resulting from accident, misuse, abuse, lack of reasonable care, failure to follow safety and installation instructions, use of the product with non-standard electrical service, or any other defect not resulting from defects in the electrical components of the product or defects in materials or workmanship. This warranty will not be effective unless and until the Oceanic product is shown to have been used in accordance with the safety and installation instructions accompanying the product, including the requirement that the product be placed on a flat, level surface designed to support the product.

THIS CONSTITUTES OCEANIC'S ENTIRE WARRANTY AND OCEANIC MAKES NO OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, WITH RESPECT TO THE PRODUCT. OCEANIC SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IF OCEANIC CANNOT LAWFULLY DISCLAIM IMPLIED WARRANTIES UNDER THIS LIMITED WARRANTY, ALL SUCH WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

OCEANIC IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY. OCEANIC EXPRESSLY DISCLAIMS ALL ALLEGED DAMAGES FOR LOSS OF AQUATIC LIFE, PERSONAL INJURY, AND/OR PROPERTY DAMAGE.

Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages or exclusions or limitations on the duration of implied warranties or conditions, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary by state or province.

Oceanic shall not have any obligations under this warranty unless the owner notifies Oceanic in writing of any alleged defect(s) within 30 days of discovery of the defect(s). Any notice to Oceanic must be delivered by United States or electronic mail to one of the following addresses:

U.S. Mail
Oceanic Systems
5401 W. Oakwood Park Drive
Franklin, Wisconsin 53132

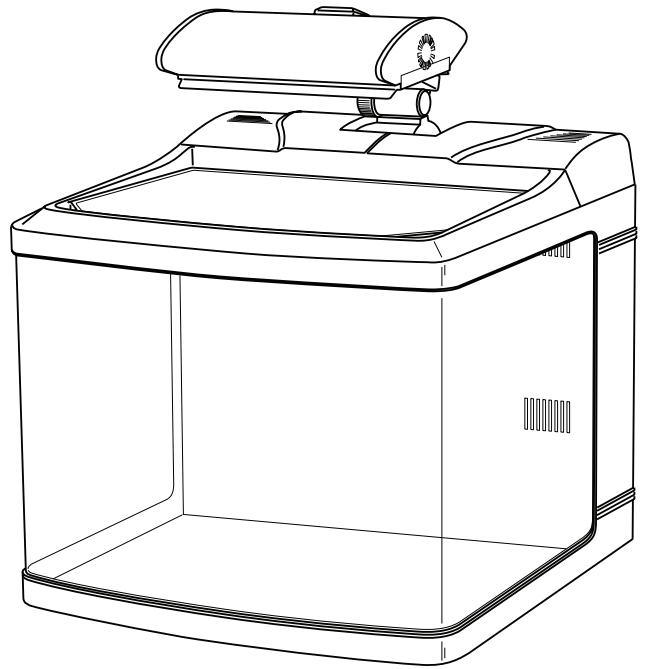
Electronic Mail
customerservice@oceanicsystems.com

Oceanic shall be allowed a reasonable period of time to investigate any warranty claim and to perform any testing Oceanic deems necessary to determine the cause of the defect. This warranty shall be interpreted under the laws of the state of Wisconsin.

For additional information regarding this limited warranty, please contact us at the addresses above, or call us at **800-255-4527**.

OCEANIC®

Bio CUBE™ HQi



Owner's Manual

PRODUCT SPECIFICATION

Glass Aquarium: Size 29

Net Volume: 26 Gallons

Dimension:
20"l x 20.75"w x 19.25"h

Lighting:
150 Watt, 14,000K,
double-ended metal halide

Cooling Fans: 38 mm,
4,000 RPM

Pump Flow Rate:
243 gph (920 L/H)

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Page 4	**Important Safety Instructions**
Page 6	**Grounding**
Page 7	**BioCube HQI Assembly and Setup Instructions**
Page 18	**Aqualight HQI Assembly and Setup Instructions**
Page 26	**BioCube HQI Maintenance**
Back Cover	**Warranty and Contact Information**

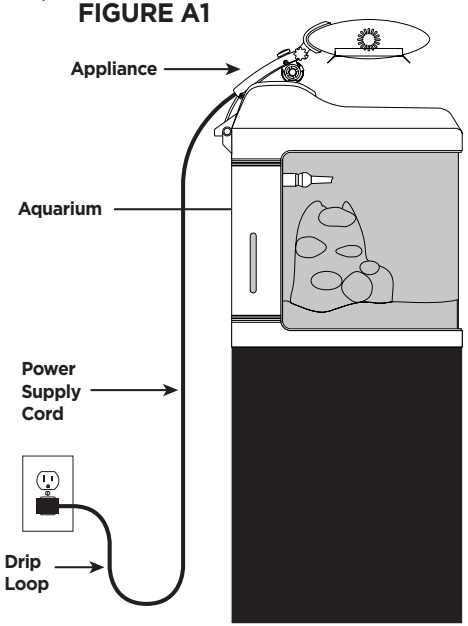
IMPORTANT SAFETY INSTRUCTIONS

1. **WARNING** – To guard against injury, basic safety precautions should be observed, including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

2. **DANGER** – To avoid possible electric shock, special care should be taken since water is employed in the use of aquarium equipment. For each of the following situations, do not attempt repairs by yourself; return the appliance to an authorized service facility for service or discard the appliance:
   A. If the appliance falls into the water, DO NOT reach for it! First unplug it and then retrieve it. If electrical components of the appliance get wet, unplug the appliance immediately.
   B. If the appliance shows any sign of abnormal water leakage, immediately unplug it from the power source.
   C. Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.
   D. Do not operate any appliance if it has a damaged cord or plug, or if it is malfunctioning or has been dropped or damaged in any manner.
   E. To avoid the possibility of the appliance plug or receptacle getting wet, position aquarium stand and tank to one side of a wall-mounted receptacle to prevent water from dripping onto the receptacle or plug. A "drip loop," shown in figure below, should be arranged by the user for each cord connecting an aquarium appliance to a receptacle. The "drip loop" is that part of the cord below the level of the receptacle, or the connector if an extension cord is used, to prevent water traveling along the cord and coming in contact with the receptacle (Figure A1). If the plug or receptacle does get wet, DO NOT unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the appliance. Then, unplug and examine for presence of water in the receptacle.

FIGURE A1



3. Close supervision is necessary when any appliance is used by or near children.
4. To avoid injury, do not contact moving parts or hot parts such as heaters, reflectors, lamp bulbs, and the like.
5. Always unplug an appliance from an outlet when not in use, before putting on or taking off parts, and before cleaning. Never yank cord to pull plug from outlet. Grasp the plug and pull to disconnect.
6. Do not use an appliance for other than intended use. The use of attachments not recommended or sold by the appliance manufacturer may cause an unsafe condition.
7. Do not install or store the appliance where it will be exposed to the weather or to temperatures below freezing.
8. Make sure an appliance mounted on a tank is securely installed before operating it.
9. Read and observe all the important notices on the appliance.

10. If an extension cord is necessary, a cord with a proper rating should be used. A cord rated for less amperes or watts than the appliance rating may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
11. For added safety, the fixture must be plugged into a receptacle controlled by a GFI (ground fault interrupter) circuit breaker. Device must be properly connected to a grounded three-prong receptacle.
12. Do not use this appliance in such a way that the vents are restricted or blocked. These vents are necessary to avoid overheating and ensure safe operating temperature.
13. This appliance is intended FOR HOUSEHOLD USE ONLY.
14. **THIS APPLIANCE IS FOR USE OVER COVERED AQUARIUMS ONLY.**

SAVE THESE INSTRUCTIONS!

IMPORTANT SAFETY INFORMATION:
Please read the following precautions before use!

1. To reduce the risk of electric shock, always unplug the pump and power cords before performing any maintenance.
2. Never allow small children to touch, climb-on, or play with the aquarium or its stand. Adult supervision is required.
3. Never place an aquarium on the floor, it can cause injury or become damaged.
4. Never set an aquarium on an unsturdy or unsupported structure, such as those which are unable to support the weight of a filled aquarium, are suspended, can rock or sway, can sag, or on wheels or allows the aquarium to overhang. These could cause the aquarium to leak, crack, or even fall over if a top heavy situation is created.
5. Aquarium supports that are less than 12" wide (front and back) should be fastened or tethered to a wall to prevent a top heavy or unstable condition.
6. Do not allow water pump to operate dry at any time.
7. Always observe proper maintenance to ensure optimal operation.

HANDLE WITH CARE!
Always handle aquarium with care to avoid personal injury.

1. Never lift or attempt to move an aquarium that is not completely empty.
2. Never lift an aquarium with wet hands.
3. Never attempt to lift an aquarium by grasping the upper edges of the frame or from the canopy.
4. Always lift or carry an empty aquarium by supporting it from the bottom of the tank.

AQUARIUM LOCATION

1. For best results, place an aquarium in a location best suited to support the total weight of the aquarium. The filled weight of an aquarium is approximately 10-12 lbs. per gallon of water plus the weight of sand, gravel, rocks or decorations.
2. Always place an aquarium on a flat and level area.
3. Avoid placing an aquarium where it will receive direct sunlight. Full or even partial sunlight can cause algae growth.
4. Keep aquarium in a well ventilated area away from a heating or cooling vent.
5. Do not place near electronic components and systems (i.e. TV, stereo systems, etc.).

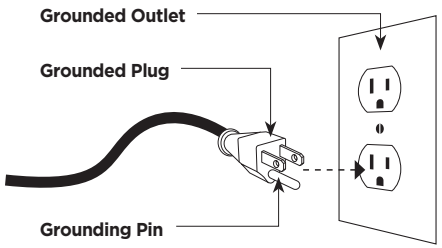
GROUNDING

Grounding Setup:

This appliance should be grounded to minimize the possibility of electric shock. This appliance is equipped with an electric cord having an equipment grounding conductor and a grounding type plug. The plug must be plugged into an outlet that is installed and grounded in accordance with all appropriate codes and ordinances.

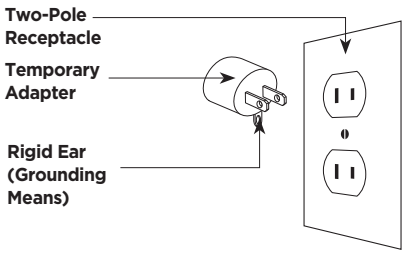
This appliance is for use on a nominal 120-volt circuit, and has a grounding plug that looks like the plug illustrated in Figure A2.

FIGURE A2



A temporary adaptor which looks like the adaptor shown (Figure A3) may be used to connect this plug to a two-pole receptacle as shown in Figure A4, if a grounded outlet is not available. The temporary adapter should be used only until a grounded outlet can be installed by a qualified electrician. (Temporary adapter not included.)

FIGURE A3

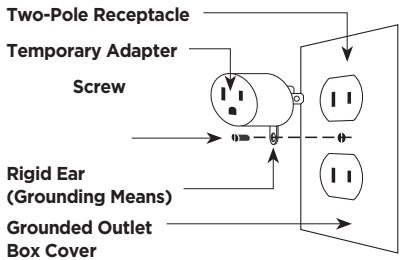


Grounding Installation:

The green-colored ground terminal (screw, and the like) extending from the adapter must be fastened to a permanent ground such as a grounded outlet box.

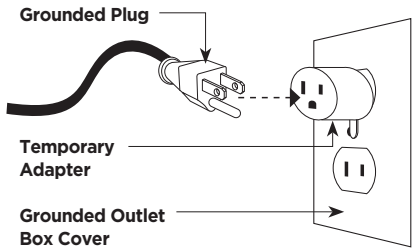
1. Plug temporary adapter into two-pole outlet (Figure A4).

FIGURE A4



2. Insert screw through rigid ear on temporary adapter and into grounded outlet box (Figure A5).

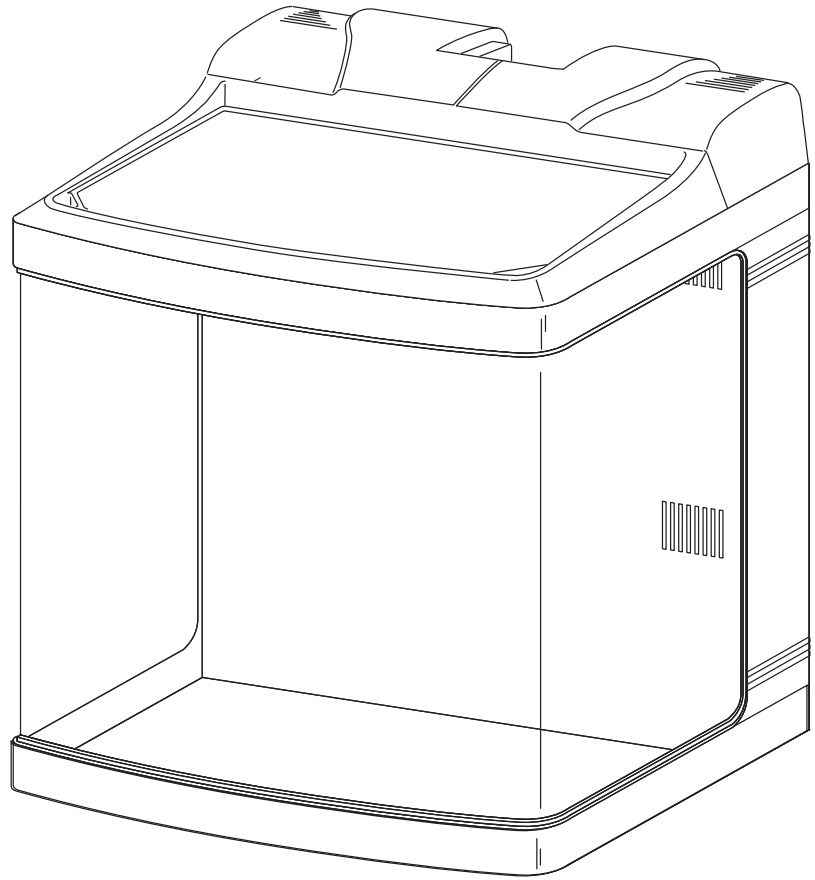
FIGURE A5



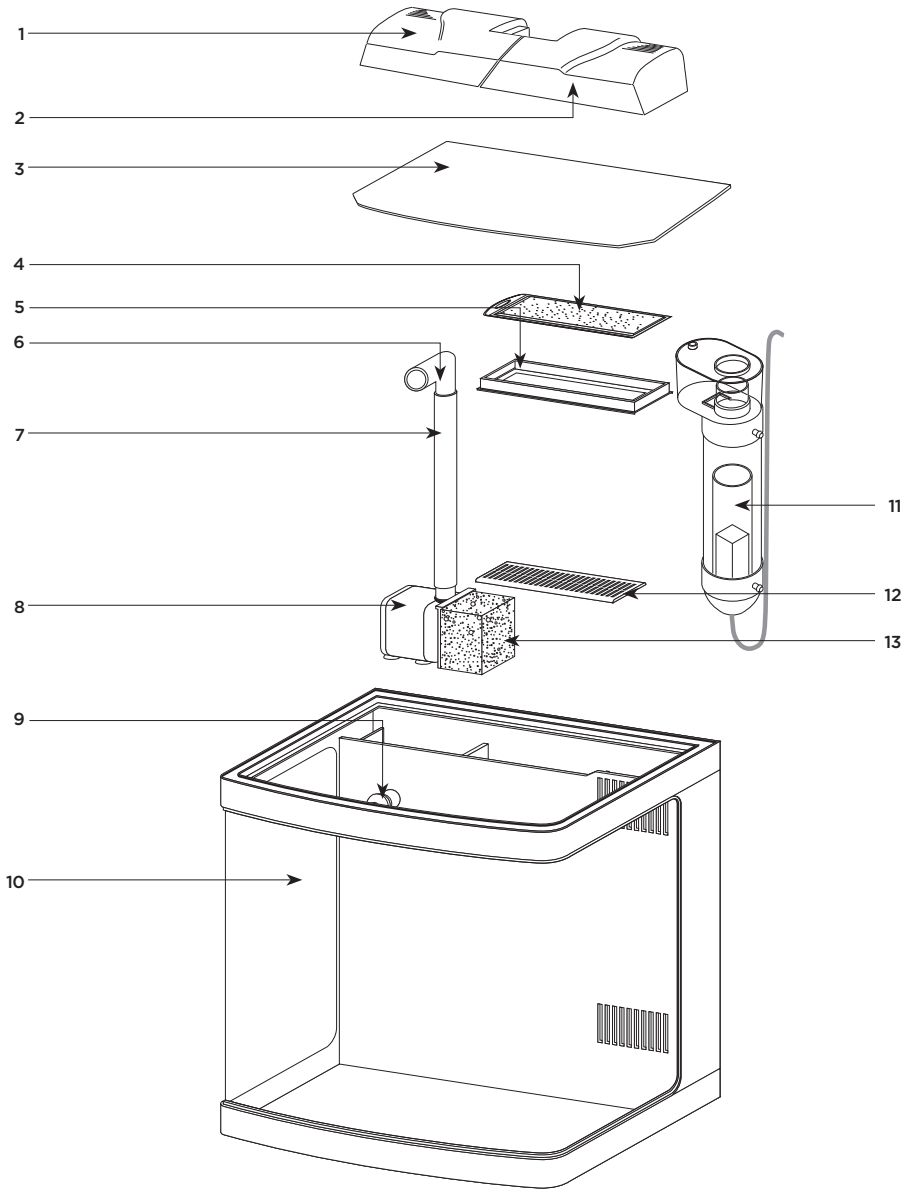
Power Strip Setup:

1. If using a power strip, the ground connector must be plugged into a receptacle controlled by a GFI (ground fault interrupter) circuit breaker.
2. Make sure to place the power strip in a dry and safe area away from the aquarium in order to avoid moisture.
3. Place power strip in a secure and stable area so that it cannot fall into the aquarium or sump.
4. Make sure all receptacles are protected from water: splash, spilling and evaporation.

BioCube HQI
ASSEMBLY AND SETUP INSTRUCTIONS



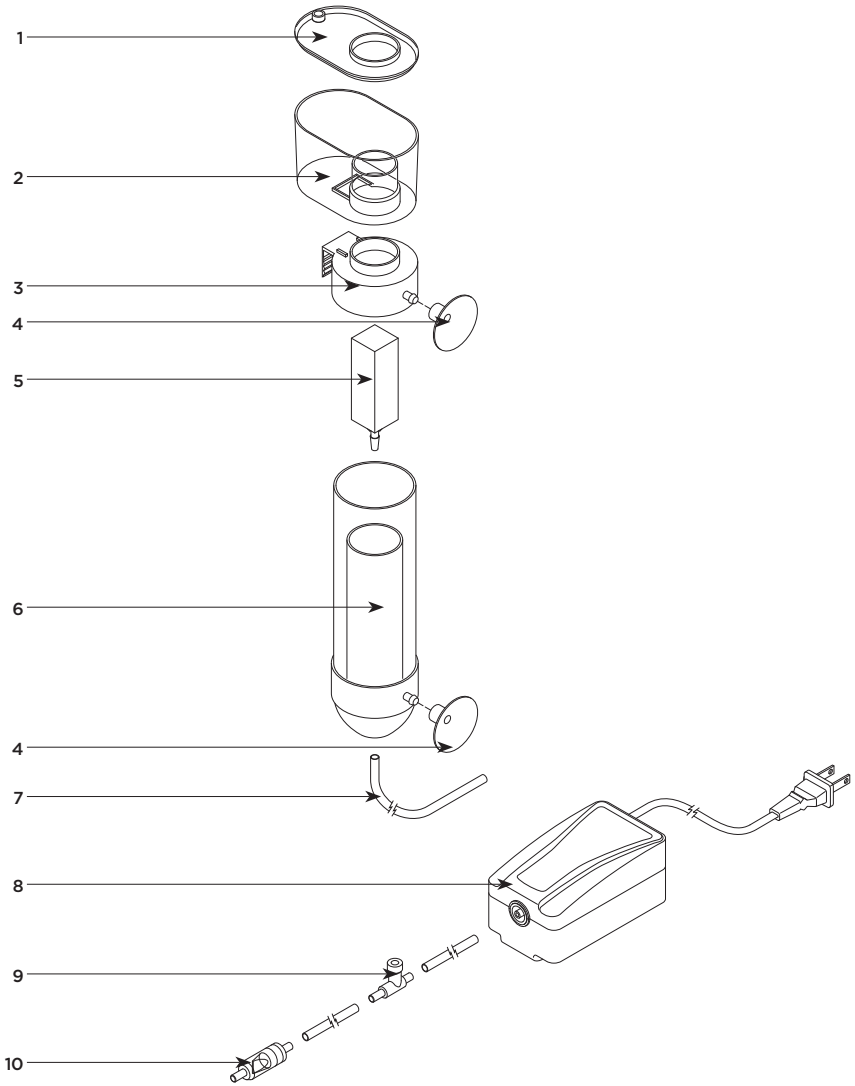
BIOCUBE HQI PARTS DIAGRAM



BIOCUBE HQI PARTS IDENTIFICATION

Part #	Description	Item #
1	Left Filtration Cover	
2	Right Filtration Cover	
3	Glass Canopy	
4	Filter Cartridge	82105
5	Overflow Tray	
6	Output Elbow Attachment	
7	Flexible Tubing	
8	Water Pump	82007
9	Output Discharge Nozzle	
10	BioCube Glass Aquarium	
11	BioCube Protein Skimmer (see pages 10 and 11 for parts/identification)	82053
12	Refugium Strainer	
13	Sponge Filter	

PROTEIN SKIMMER DETAILED DIAGRAM



PROTEIN SKIMMER PARTS IDENTIFICATION

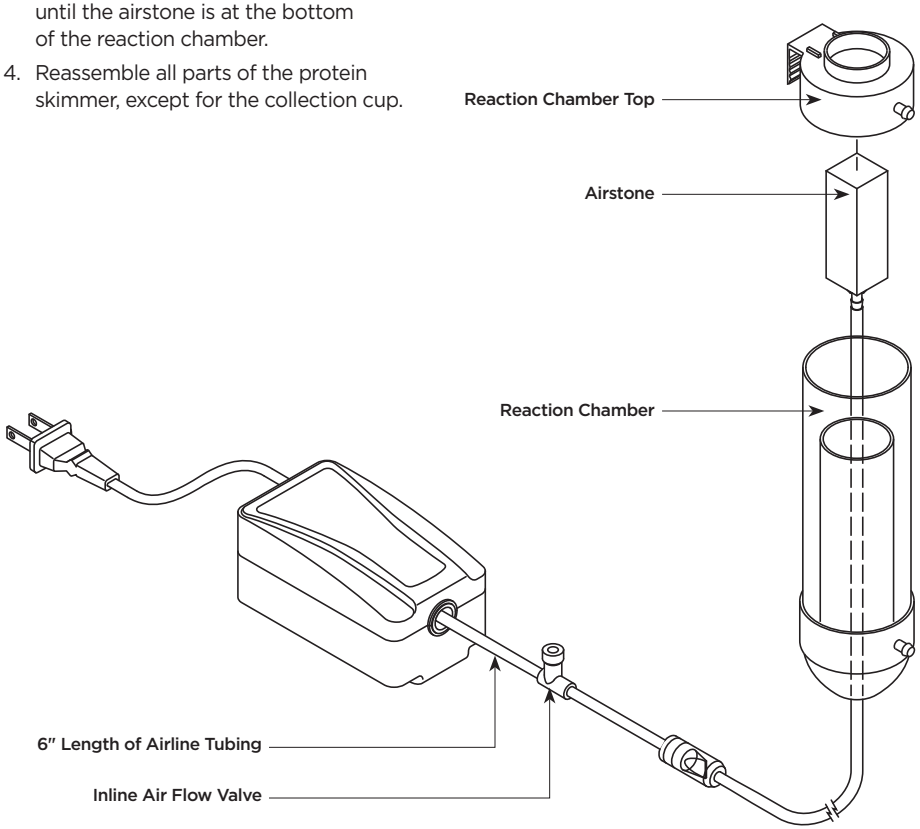
Part #	Description
1	Collection Cup Lid
2	Collection Cup
3	Reaction Chamber Top
4	Suction Cup
5	Airstone
6	Reaction Chamber Assembly
7	Airline Tubing 7'
8	Air Pump
9	Inline Air Flow Valve
10	Check Valve

BIOCUBE PROTEIN SKIMMER SETUP

Protein Skimmer Assembly (Figure C1)

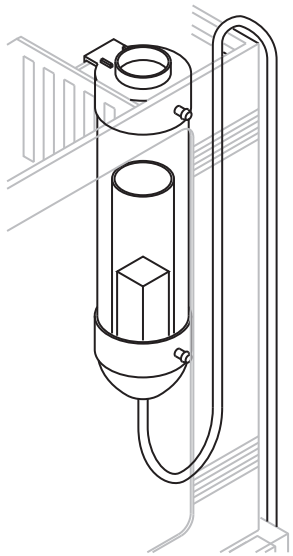
1. Insert airline tubing into air pump using end that has just 6″ before the inline air flow valve.
2. Remove reaction chamber top from reaction chamber and insert the other end of the airline tubing through the hole at the bottom of the reaction chamber.
3. Attach the airstone to the end of the airline tubing and pull it back through until the airstone is at the bottom of the reaction chamber.
4. Reassemble all parts of the protein skimmer, except for the collection cup.

FIGURE C1



BIOCUBE PROTEIN SKIMMER SETUP (con't)

FIGURE C2



Protein Skimmer Placement (Figure C2)

1. Using hanging clip on reaction chamber top, hang protein skimmer on the wall between chambers 1 and 2. **NOTE:** if skimmer is in correct position, the right filtration cover will fit properly.

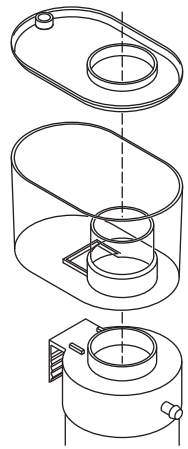
Collection Cup Assembly (Figure C3)

1. Place collection cup on top of reaction chamber. Pull airline tubing through the hole on the back of the right filtration cover, making certain that airflow is not restricted when the right filtration cover is on.

Protein Skimmer Startup

1. Once water has been added (page 23), plug in pump. Adjust airflow adjustment nozzle so that bubbles stay just above the reaction chamber.
2. When collection cup fills, remove and dispose of waste material by rinsing with warm water.

FIGURE C3



BIOCUBE FILTER SETUP

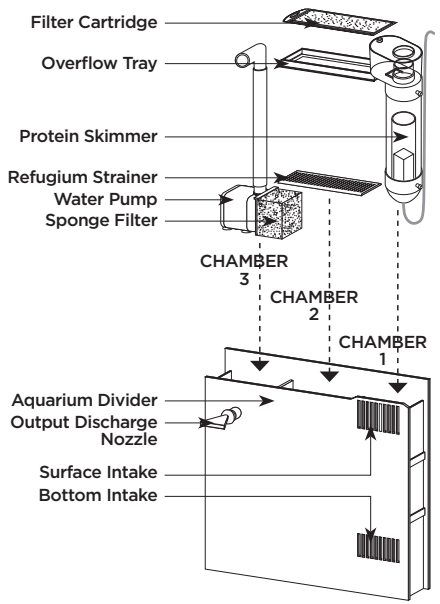
SAFETY:

1. Turn off all switches and unplug all power cords from outlet or power source before performing maintenance.
2. Visually inspect the aquarium and all parts prior to installation to make sure nothing has been damaged.

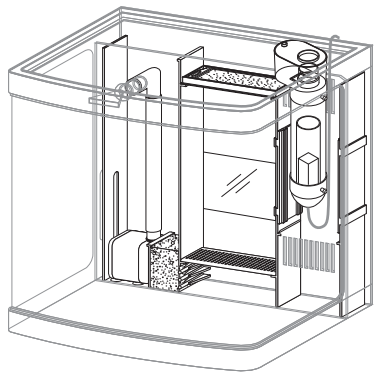
Filter Assembly and Setup (Figure C4)

1. Remove left and right filtration covers, glass canopy and Aqualight HQI.
2. Place protein skimmer in chamber 1 after proper assembly and according to proper placement instructions (pages 20-21).
3. Remove filter cartridge from the overflow tray in chamber 2 and its packaging. Rinse thoroughly with cool freshwater and reinstall in the overflow tray.
4. Make sure that the overflow tray and refugium strainer are properly placed inside chamber 2.
5. Make sure that the sponge filter is correctly placed in chamber 3.
6. Make sure that the water pump is properly assembled and connected to the return output discharge nozzle.

FIGURE C4



COMPLETED FILTER ASSEMBLY



BIOCUBE FILTER STARTUP

Filter Startup Operation (Figures C5 and C6)

1. Add substrate, rocks and décor to the aquarium.
2. Prepare saltwater for aquarium, making sure water is at room temperature.
3. Slowly add water to the aquarium. Make sure to fill aquarium to the lower edge of the top moulding (Figure C5).
4. Plug water pump cord into an outlet or power source. Pump will raise the water level in the aquarium section while draining into the filtration section (Figure C6).
5. Observe and make sure that the water circulation is flowing properly from the aquarium section into the filtration section.
6. Place glass top on aquarium.
7. Attach and plug in Aqualight HQI according to instructions (page 10).
8. Once aquarium and filtration have run for two days, and everything is functioning properly, add livestock to the aquarium.

Precautions for Optimal Filter Performance

1. Do not block or obstruct output discharge nozzle.
2. Do not block or obstruct surface or bottom level intakes.
3. Perform scheduled maintenance and change filter cartridge as directed.
4. Observe scheduled maintenance on water pump.
5. Make sure to perform scheduled water changes and BioCube filter maintenance according to instructions (page 26).

FIGURE C5 **INITIAL FILL LEVEL**

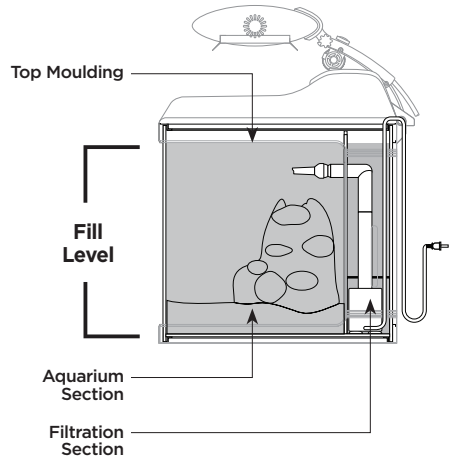
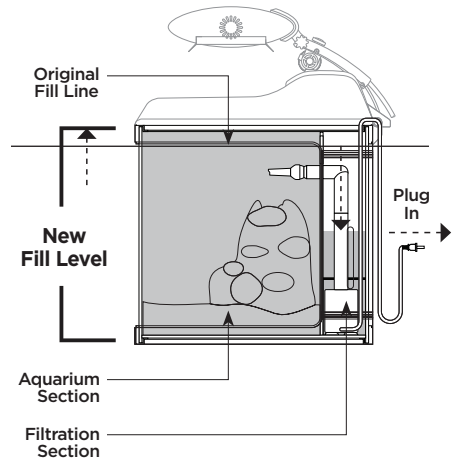


FIGURE C6

FILL LEVEL AFTER FILTER STARTUP



REFUGIUM SETUP AND REFUGIUM LIGHT INSTALLATION

SAFETY:

1. Turn off all switches and unplug all power cords from outlet or power source before performing maintenance.

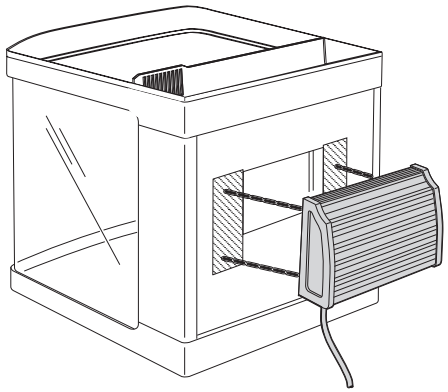
Refugium Setup With Refugium Light (not included)

1. Remove left and right filtration covers.
2. Remove overflow tray and filter cartrige from center filter chamber.
3. Once the BioCube aquarium is fully set up and ready to support livestock, add substrate and macroalgae to the refugium chamber. Replace overflow tray, filter cartridge and left and right filtration covers.

Refugium Light Installation (Figure C7)

1. Locate window on the back of the BioCube HQI.
2. Clean area around the illumination window with a dry cloth to remove any dust, salt or water.
3. Follow instructions included with the refugium light to mount to BioCube HQI.

FIGURE C7

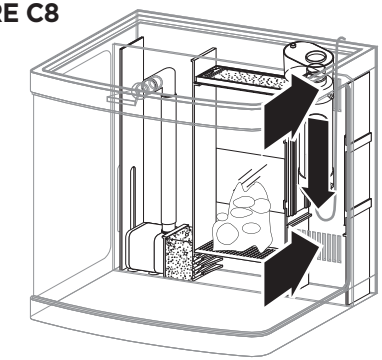


BIOCUBE FILTER OPERATION

BioCube Filtration Stages (Figures C8–C10)

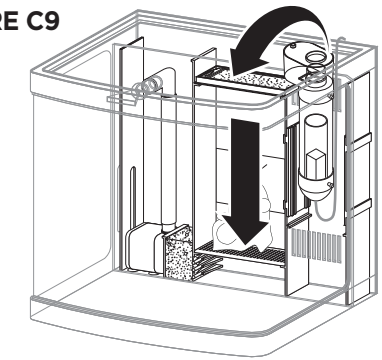
1. Water flows from aquarium into the surface and bottom intakes into chamber 1 where some enters the protein skimmer (Figure C8). The protein skimmer removes many harmful organic materials from the water.

FIGURE C8



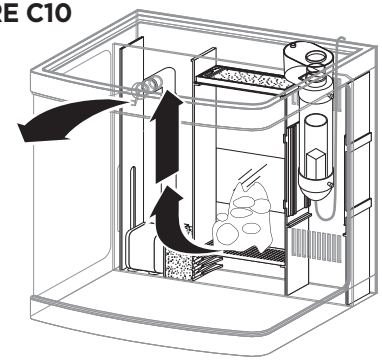
2. From chamber 1, water flows over the top of and through the filter cartridge into the refugium in chamber 2 (Figure C9). Live macroalgae and live rock in the refugium remove excess nutrients and add oxygen to the water while helping stabilize the pH level.

FIGURE C9

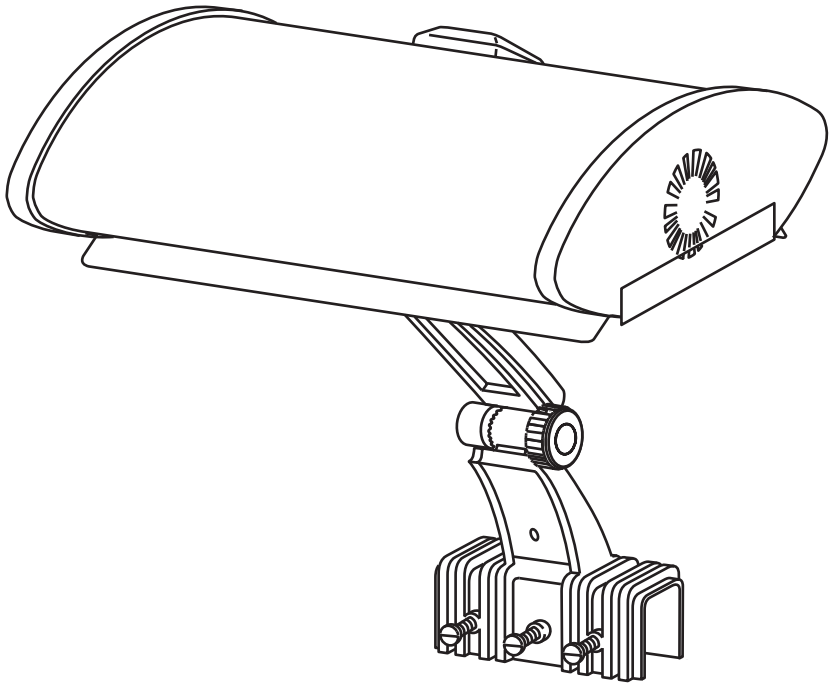


3. From the refugium, water flows into chamber 3 through the sponge filter and into the water pump (Figure C10). The water pump then forces the water through the flexible tubing and back into the aquarium through the discharge nozzle.

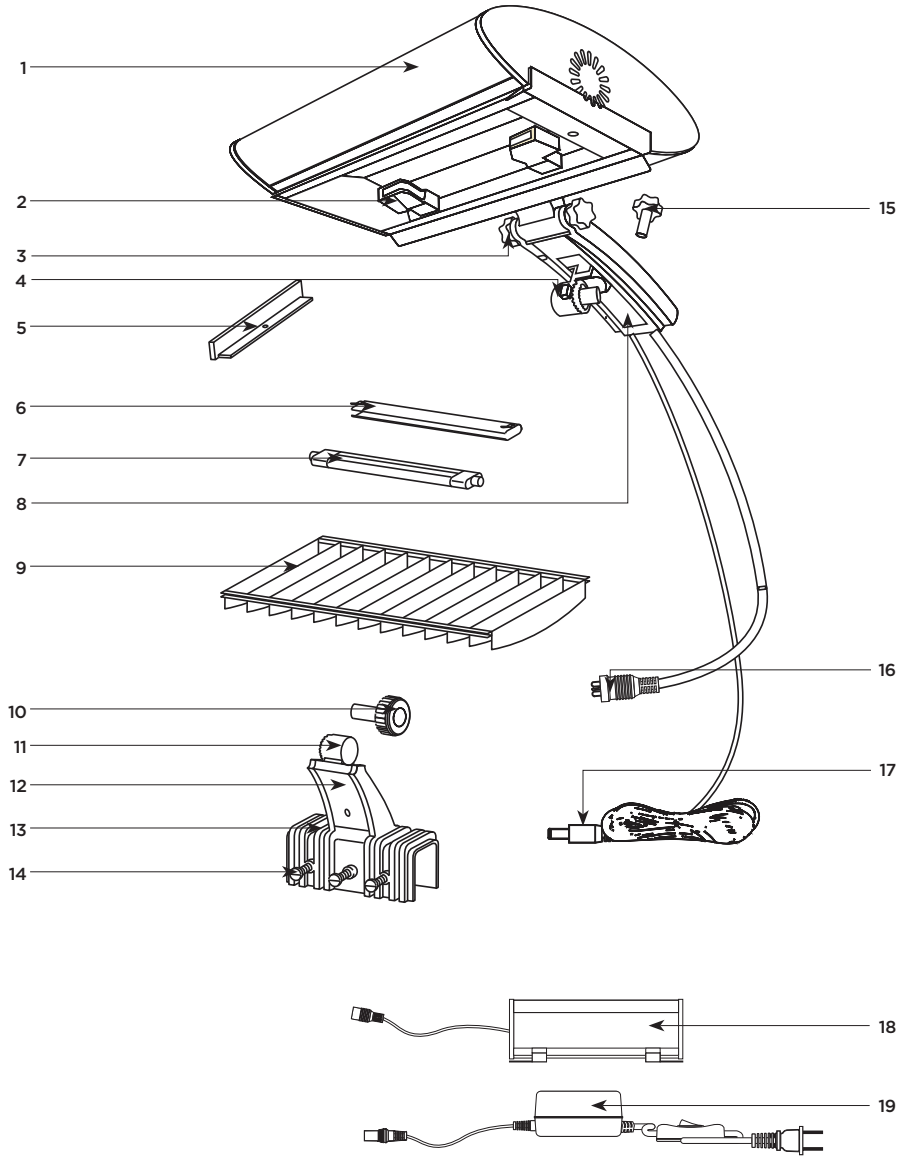
FIGURE C10



Aqualight HQI
ASSEMBLY AND SETUP INSTRUCTIONS



AQUALIGHT HQI PARTS DIAGRAM



AQUALIGHT HQI PARTS IDENTIFICATION

Part #	Description
1	Aqualight Lighting Hood
2	Lamp Holder
3	Angle Adjustment Knob
4	Male (A) Connection Knob
5	Side End Panel
6	HQI Glass Lens Cover
7	Double-Ended HQI Metal Halide Lamp
8	Extension Arm
9	Ventilation Grill
10	Height Adjustment Knob
11	Female (B) Connection Knob
12	Hang-On Tank Mount Base
13	Tank Mount Bracket
14	Tank Mount Screws (3)
15	Extension Adjustment Knob
16	Ballast Connection
17	Cooling Fan Connection
18	HQI Metal Halide Ballast
19	Cooling Fan Adaptor

ASSEMBLY AND MOUNTING

WARNING:

1. **This fixture is for use over covered aquariums only.**
2. Always turn fixture off and unplug ballast power cord before adjusting fixture or replacing lamps. Let the fixture cool down before handling.
3. Do not attach fixture to ballast until all assembly connections, adjustments and mounting setups are completely performed.

Aqualight HQI Mounting (Figures B1 and B2)

1. Place Aqualight tank mount bracket between the two rear filtration covers (Figure B1).
2. Hold the tank mount bracket in place and remove the two rear filtration covers.
3. Continue to hold tank mount bracket in place and fasten tank mount screws (Figure B2). Hand tighten tank mount screws until tank mount bracket is securely in place.

Aqualight HQI Fixture Assembly (Figure B3)

1. Connect lighting hood (Connection A), with male connection knob to tank mount bracket (Connection B), with female connection knob using height adjustment knob.
2. Screw height adjustment knob through Connection B and into Connection A.
3. Adjust and secure connection.

Safety Precautions:

1. Do not plug BioCube into an outlet or power source until setup and installation is completed.
2. Visually inspect the aquarium and canopy prior to installation to make sure it has not been damaged.

FIGURE B1

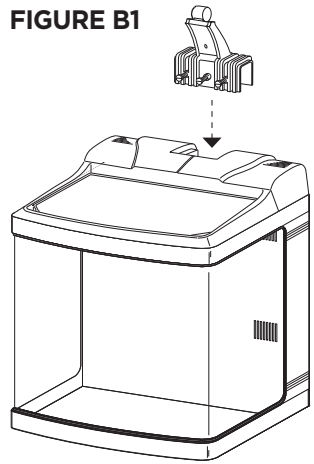


FIGURE B2

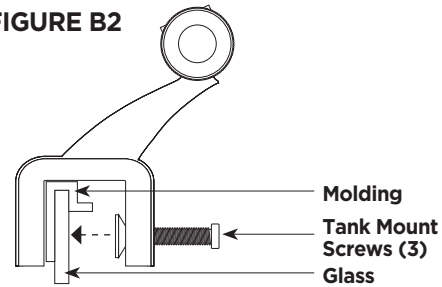
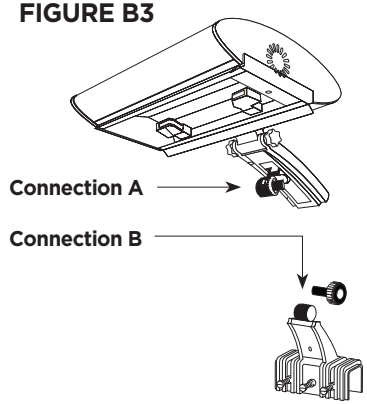


FIGURE B3



AQUALIGHT ADJUSTMENTS

SAFETY:

1. Turn off switch, unplug ballast power cord and allow fixture to cool down before handling.
2. Do not let the top lighting hood come into direct contact with water.

Extension Adjustment (Figure B4)

1. Loosen extension adjustment knob.
2. Adjust extension arm to desired position.
3. Hand tighten extension adjustment knob firmly. **Make sure that the fixture is tightened securely in place.**

Height Adjustment (Figure B5)

1. Loosen height adjustment knob until extension arm moves freely.
2. Adjust top lighting hood to desired position.
3. Hand tighten height adjustment knob firmly. **Make sure that the fixture is tightened securely in place.**

Angle Adjustment (Figure B6)

1. Loosen angle adjustment knobs.
2. Adjust top lighting hood to desired position.
3. Hand tighten angle adjustment knobs firmly. **Make sure that the fixture is tightened securely in place.**

FIGURE B4
Extension Adjustment

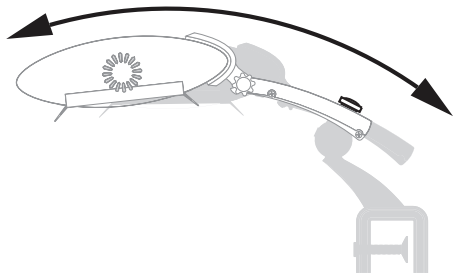


FIGURE B5
Height Adjustment

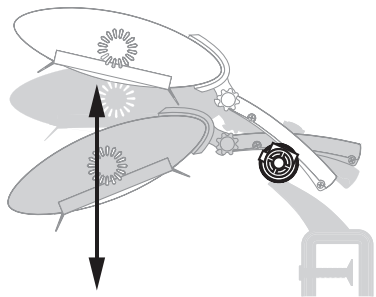
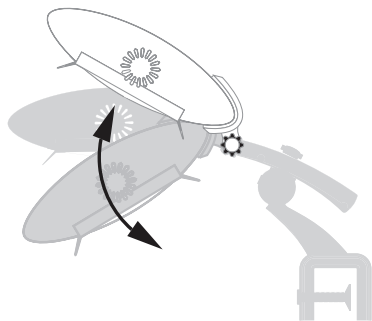


FIGURE B6
Angle Adjustment



BALLAST AND COOLING FAN SETUP

IMPORTANT SAFETY NOTES:

1. Make sure to follow the fixture and HQI ballast connection instructions in their entirety. Failure to follow these directions may damage ballast and/or cause failure.
2. Turn off all switches and unplug all power cords from power outlet(s). **Do not plug power cords into power outlets until fixture installation and setup is complete.**

Ballast Setup (Figure B7)

1. Locate double-ended HQI metal halide lamp connector on unit.
2. Make sure that the double-ended HQI metal halide ballast is unplugged and switch is in the "off" position.
3. Align the male pins on the double-ended HQI metal halide lamp connector with the female pin inlets on the double-ended HQI metal halide ballast connector and connect. **IMPORTANT! Make sure that the lamp connector is fully seated into the ballast connector.**

Mounting HQI Ballast (Figure B8)

THIS STEP IS OPTIONAL

1. Slide out ballast-mounting bracket.
2. Place metal washer between screw and ballast mounting bracket. Tighten screw until secure (mounting hardware not included).

Cooling Fan Setup (Figure B9)

1. Locate cooling fan connector on fixture.
2. Attach cooling fan connector to cooling fan adaptor.

FIGURE B7

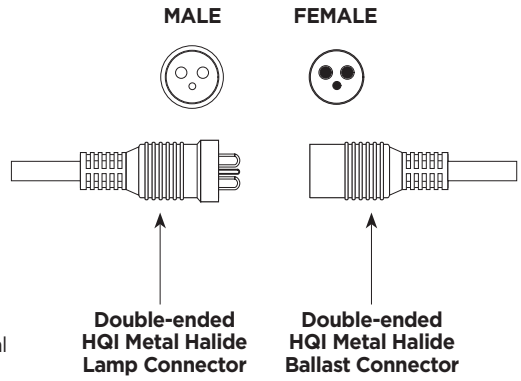


FIGURE B8

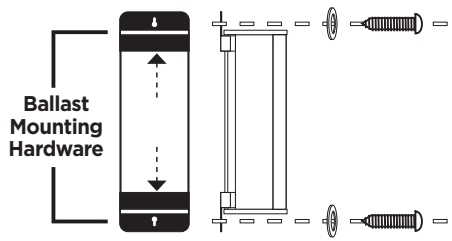
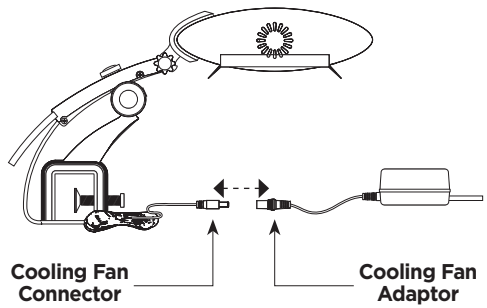


FIGURE B9



OPERATION

Startup Operation

1. Make sure all connections are completely attached and secure.
2. Make sure that all switches are in the off position before plugging in power cords to power source**.**
3. Plug double-ended HQI metal halide ballast power cord into an outlet or power source and turn the switch on.

   NOTE: It may take 5-10 minutes for double-ended HQI metal halide lamp to reach maximum light intensity.

   CAUTION: When the double-ended HQI metal halide ballast is turned off, wait until the double-ended HQI metal halide lamp has completely cooled before turning ballast back on. Lamp may not turn on if not completely cooled.
4. Verify that the lamp is lit and functioning properly.
5. Plug cooling fan power cord into an outlet or power source and turn the switch on.

   NOTE: Cooling fan must be on while lamp is on.
6. Make sure cooling fans are on and are blowing freely across the unit.

LAMP REPLACEMENT

SAFETY:

1. Turn off all switches and unplug all power cords from outlet or power source before performing maintenance.
2. Make sure the unit is cool before handling.

Double-Ended HQI Metal Halide Lamp Replacement (Figures B10–B12)

1. Remove the fixture from the aquarium.
2. Place fixture on a non-abrasive flat surface with the bottom facing up.
3. Remove the side panel (Figure B10).

   NOTE: side end panel is located at the end of the fixture, opposite the cooling fan.
4. Slide ventilation grill off of the fixture (Figure B10).
5. Detach glass lens cover from the lamp holder by pushing the cover into the opposite end to free one side of the cover from the cover clamps (Figure B11).
6. Use a soft cloth to grab one end of the lamp. Push the lamp into the opposite end to free one side of the lamp from the double-ended HQI metal halide socket (Figure B12).
7. Gently lift the lamp up at an angle and remove the lamp (Figure B12).
8. Carefully install replacement double-ended HQI metal halide lamp using a soft cloth.
9. Replace all light fixture parts.

   WARNING: Do not touch double-ended HQI metal halide lamp with fingers, as the oils may damage the lamp. If contact is made with the lamp, use a clean, soft, dry cloth to remove any fingerprints from the lamp before use.

FIGURE B10

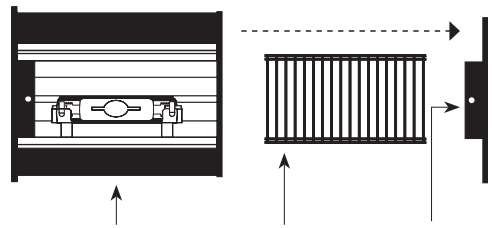


FIGURE B11

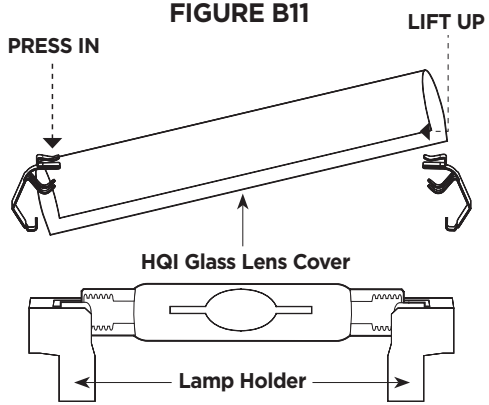
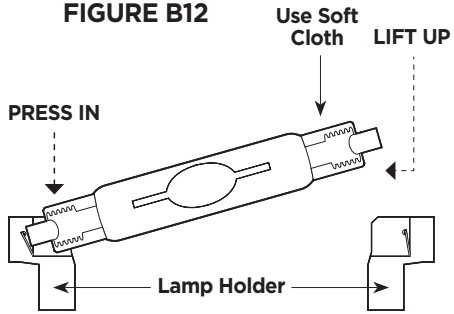


FIGURE B12



BIOCUBE MAINTENANCE

WARNING!

1. Make sure all switches are in the off position and unplug power cords from power source or outlet before performing maintenance.
2. Wash hands thoroughly with soap and water before performing maintenance to avoid contamination of the aquarium.

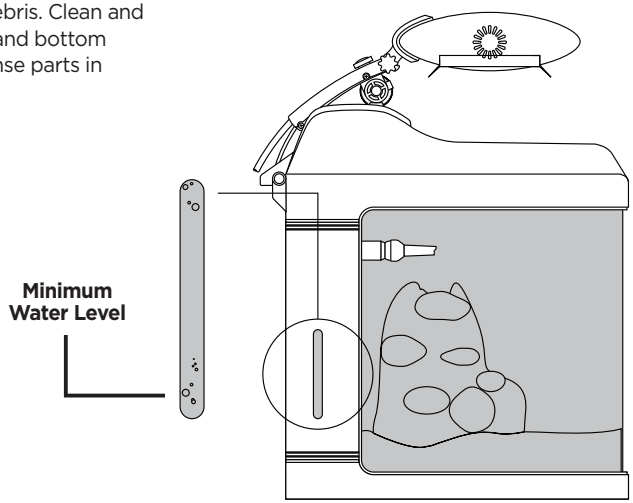
Daily Maintenance (Figure C11)

1. Visually observe the BioCube lighting and filtration to make sure that the system is functioning properly.
2. Check water level. Make sure to replace evaporated water with freshwater to replenish water supply. **Do not let water get below the minimum water level.**

Weekly Maintenance

1. Keep BioCube surfaces clean from dust and debris. Wipe exposed surfaces with a clean and dampened soft terrycloth.
2. Remove glass top and wipe down with a dampened soft terrycloth to remove salt buildup.
3. Inspect filtration system for clogging and excessive accumulation of debris. Clean and remove debris from surface and bottom intakes and overflow tray. Rinse parts in freshwater if needed.

FIGURE C11



BIOCUBE MAINTENANCE (con't)

Monthly Maintenance (Figures C12–C14)

1. Replace used filter cartridge by tilting the filter back from one end of the overflow tray, then pulling out. Discard. Rinse new filter cartridge with freshwater before installing (Figure C12).
2. Remove sponge filter from water pump. Rinse and clean sponge with cool freshwater to remove accumulated organic buildup (Figure C13).
3. Disconnect water pump from output elbow attachment and flexible tubing. Disassemble pump and impeller. Rinse and wipe down all parts to dislodge debris. If calcium buildup is present, soak in a vinegar solution with one part vinegar to one part water for one hour, then rinse thoroughly.
4. Disassemble pump and impeller. Rinse and wipe down all parts to dislodge debris and particulate matter (Figure C14).

9–12 Month Maintenance

1. Replace Aqualight HQI metal halide bulb every 9-12 months by following the lamp replacement instructions on page 14. For optimal performance, always use Coralife brand 150 Watt Double-Ended HQI replacement lamps.

FIGURE C12

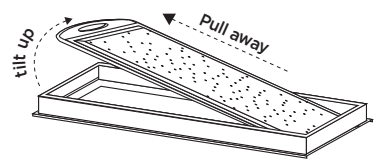


FIGURE C13

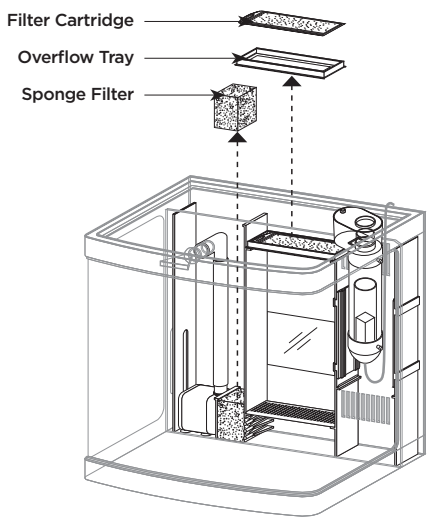


FIGURE C14